

IN THE CLAIMS:

The following is a listing of the claims in the subject application with claims 1 and 3 shown as amended, and with claims 4 and 5 cancelled:

LISTING OF CLAIMS

1. (Currently Amended) An appearance inspection apparatus for inspecting the appearance of a body comprising:

a scanning head for scanning the body to be inspected; and

a main unit for controlling the inspection apparatus and said scanning head;

wherein said scanning head further comprises:

a lighting unit having multiple light sources for projecting light onto a surface of said body to be inspected at different given angles with respect to said body, said multiple light sources including a side light source, which projects light onto the surface of said body to be inspected at an angle and a slit light source, which projects a slit light at an angle; and

a one-dimensional sensor comprising at least a plurality of arrays of multiple arrays of multiple image capturing elements for detecting light reflected from said surface of said body to produce image data; and

wherein said main unit further comprises:

a head control unit for providing a control signal to said lighting unit for alternately switching between each said side light source and said slit light source of said multiple lighting sources to create different lighting states from the light projected by each of said lighting sources respectively and for controlling the relative motion of said scanning head relative to said body;

a memory control unit for storing in memory image data corresponding to the projected light produced by said one-dimensional sensor from each lighting source respectively;

a correction value memory unit for storing multiple digital correction values in the form of a table for each lighting source and for the different lighting conditions for each lighting source; and

an analysis unit for correcting shading resulting from said image data based upon selection of correction values stored in the correction value memory unit for each of the different lighting states switched by said head control unit to obtain an appearance inspection image of said body to be inspected.

2. (Original) The appearance inspection apparatus of Claim 1 wherein said one-dimensional sensor comprises an array of multiple capturing elements corresponding to three (RGB) colors.

3. (Currently Amended) The appearance inspection apparatus of claim 2 wherein ~~said main unit further comprises a correction value memory unit for storing~~ digital correction values ~~as a table~~ are stored for each array of said RGB image capturing elements.

4. (Cancelled)

5. (Cancelled)

6. (Original) The appearance inspection apparatus of Claim 2 wherein said multiple light sources of said lighting unit include:

a side light source, which projects light onto the surface of said body to be inspected at an angle; and

a slit light source, which projects a slit light at an angle; and

wherein said head control unit alternately switches said side light source and said slit light source for lighting said surface.

7. (Canceled)